

free, is sufficient to retain the parts *in situ*. In the case of our patient the secretion of milk continued normal up to the period of cure.

The most advantageous position in cases of fractured sternum is to remain seated in bed, the head and the thorax being elevated, and the thighs flexed, so as to avoid the inconvenient tension of the abdominal muscles, which often gives rise to displacement of the portions of bone.

Absolute rest must be enjoined, much speaking is to be prohibited, and such efforts as coughing or sneezing must be avoided as much as possible. Three cushions, one at the back and two at the sides of the thorax, will be advantageous in maintaining the patient in the proper position.

Lastly, it may be asked, how can fracture of the sternum occur during the parturient efforts?—a question, the answer to which ought to be interesting, not only to surgeons, but to all obstetricians, and especially to the numerous midwives, who are too indolent, and superstitiously place their patients in strange, disadvantageous, and injurious positions.

It cannot be denied, that during pregnancy the size of the abdomen enormously distends all the tissues of the latter, and the muscles in general acquire a high degree of tension, as do all the abdominal muscles and those attached to the sternum; this anatomical condition may therefore become a concurrent cause of fracture of the bone in question. In fact, scarcely do the expulsive uterine efforts commence, when all the muscles are put upon the stretch, and the sternum is drawn a little downwards; consequently, if, instead of giving to the patient a position calculated rather to moderate this tension, she be placed in another likely to augment the downward traction of the bone, fracture of the latter, if it occurs, may be attributed to the faulty position in which the woman is placed.

Signora Grossi would not have suffered fracture of the sternum if the midwife had not foolishly placed her on the ground, or, at best, upon a mattress; and had she not, when the moment of parturition arrived, been raised upon her hands, made an effort with her arms, and counter-extension with the thoracic muscles, the abdominal muscles at the same time drawing the sternum forcibly downwards; the bone was thus immediately acted on by two forces, the one thoracic and superior, the other abdominal and inferior; it consequently gave way in its upper third, and a fracture was produced, which might have caused death. The only means of preventing the recurrence of such accidents is to warn the midwives that patients ought to be delivered in bed, and, still better, in the obstetric bed; but when this is not to be had, and if it is wished at all risks to deliver in those wretched chairs, against which every surgeon ought to exclaim, it is necessary that the midwives should at least know, that in any position the legs ought to be in a state of relaxation on the thighs, and that the thorax of the patient should be a little elevated and supported by a cushion. Without such sound principles, parturient women, especially in the country, will be in one or other mode perpetually sacrificed.—*Dublin Quart. Journ. of Med. Sci.*, Nov., 1857, from *Bulletino delle Scienze Mediche di Bologna*, April, 1857.

60. *Ruptured Uterus treated by the Free Exhibition of Opium*.—Dr. HARVEY communicated to the Medical and Surgical Society of Cork (May 13, 1857), the following interesting example of this:—

"Mary Murphy, aged 38, a spare but healthy-looking woman, was admitted into the Lying-in Hospital, stated to have been in rather strong labour of her third child for the last thirty-six hours; former labours reported to have been natural, and of about nine hours' duration. When seen at 2 o'clock P. M., the pains were strong and frequent, and she felt debilitated. Pulse about 100, weak; bowels confined; no difficulty in passing urine; the head was found occupying the upper part of the cavity of the pelvis; presenting part oedematous, and making slow advance; liquor amnii had been dribbling away since the day before. She was ordered a turpentine enema and some broth. On being suddenly summoned, about 7½ o'clock in the evening, we found the woman in a state of great prostration; the pains had ceased, and the pulse was exceedingly rapid and weak; the head of the child had receded out of reach of the

fingers, a large globular tumour was felt in the epigastrium, and there was already some abdominal tenderness. She was not conscious of any sudden change of movement having taken place. It appeared that she had a severe fall, with a basket of bread on her back, some weeks before.

"On consultation with Drs. Finn and Tanner, it was determined to attempt delivery by turning. This was easily accomplished, all being loose in the cavity of the uterus, the foetus still remaining partially within it, its head lying in a lax pouch over the os pubis. There being some difficulty in extracting the head, it was perforated behind the ear, and delivery thus accomplished. The placenta followed readily, and there was little hemorrhage throughout. It was considered advisable that I should reintroduce my hand, with a view to free any intestine that might have got engaged in the wound, when I discovered a large oblique rent in the right side of the fundus, situated anteriorly, at least three inches in extent; my fingers passed freely into the peritoneal cavity.

"The patient was very much exhausted after the operation. The pulse was then 124, small and weak; surface perspiring, but not cold. There was none of the brown vomiting frequently observed in such cases. A moderately tight bandage was applied, and she was ordered to take two grains of opium immediately, and one grain every hour afterwards; to have arrowroot and weak tea.

"We desired that we should be sent for if she were alive at 7 o'clock in the morning.

"Second day, 8 o'clock A. M. A quiet night, but had little sleep; countenance not much sunken; abdominal tenderness rather increased; pulse 100, soft; tongue moist; has passed water. Powders regularly taken up to 6 o'clock.

"2 o'clock P. M. Has been dozing a good deal; tympanitis and rather more tenderness; pulse 104, soft, but rather fuller; respirations 18; refuses all her uneasiness to the epigastrium. Twenty leeches to the abdomen, to be followed by fomentations, and afterwards a large poultice. Powders continued.

"8½ o'clock P. M. Has continued to slumber occasionally, but is easily aroused, and perfectly collected; considerable relief from the leeching; tympanitic distension rather increased; countenance better. Has taken a good deal of arrowroot. No vomiting; urine freely passed. No powders have been taken since 3 o'clock, owing to a mistake. She is to take one grain of opium every second hour, and half a drachm of mercurial ointment is to be rubbed into the arms every eighth hour.

"Third day, 8 o'clock A. M. Slept a good deal; some vomiting of grass-green fluid this morning; lochia natural; pulse 108, soft. The powders to be continued every fourth hour; cataplasms and mercurial ointment to be continued.

"9 o'clock P. M. Occasional vomiting still; tympanitis and tenderness rather diminished; lies on both sides sometimes; urine free.

"Fourth day, 11 o'clock A. M. Some sleep, but countenance a good deal sunk this morning, with dampness and diminished warmth of skin; pulse 120, weaker; was allowed to indulge too freely in drinks, and has vomited considerably more in consequence. A blister to be applied to the abdomen, and if the vomiting continue in the evening, an injection of broth, with half a drachm of tincture of opium, to be administered; to take a dessert-spoonful of chicken-broth every half hour.

"9 o'clock P. M. Vomiting has ceased, tenderness and tympanitis perceptibly diminished; countenance improved; pulse 116, stronger; lochia have disappeared; dislikes her powders. To have the following pills: Opium, twelve grains; extract of hemlock, a scruple, to be divided into twelve pills; one to be taken every third hour; the cataplasms and mercurial ointment to be continued; and to have an increased quantity of broth.

"Fifth day, 11 o'clock A. M. Night restless, and yet her countenance is improved; no appearance of mercurial action; blistered surface dressed with a drachm of mercurial ointment; frictions discontinued; pills to be continued.

"9 o'clock P. M. Puffing and tenderness less than at any time during her illness; complains slightly of her mouth; continue treatment.

"Sixth day. Three full, free, feculent evacuations; pulse 100, rather weak; tympanitis nearly gone; broth given more freely; biscuit, with milk; the pills continued.

"Seventh day. Bowels free; tongue clean; little tenderness, except in the neighbourhood of the rent; pills to be omitted, and the following draught to be taken at night: Battley's sedative liquor of opium, twenty minims; camphor mixture, eleven drachms; syrup of orange, a drachm; mix.

"Eighth day. Slept well; no pain; tenderness nearly gone. Is tired of broth, tea, and biscuit; an egg beaten up with a dessert-spoonful of wine, as often as four times in the twenty-four hours.

"Twelfth day. Has continued to improve, with slight variations, during the last four days; debility now appears to be the only source of complaint. Has continued her draughts of Battley's solution, and her wine. The following pill to be taken every fourth hour: Sulphate of quinia, two grains; extract of gentian, two grains and a half; mix.

"Evening. Pressing hard to be allowed home, and feigning inability to speak except when she wants to urge her point; bowels rather freer. Pills to be continued, and an opiate enema to be administered at night.

"Thirteenth day. Has obstinately refused her wine and pills since 6 o'clock last evening, and would not submit to the enema, notwithstanding which she has had a pretty good night; tongue natural; pulse 96, of fair strength. Discontented and difficult to manage all through her illness, she now resolutely refuses all nourishment and medicine, though told her recovery would as certainly follow compliance, as death must the contrary.

"9 o'clock P. M. In the afternoon, about 3½ o'clock, was induced by the priest to take some broth and a pill; she is, notwithstanding, evidently sinking to-night; the extremities are cold, and the pulse can scarcely be felt; she is perfectly collected, and keeps to her resolution.

"Fourteenth day. Died about 4 o'clock this morning.

"*Examination, sixteen hours after death.*—A very hurried and unsatisfactory examination was, with great difficulty, obtained by candlelight, in the presence of her father and mother. There was no distension of the abdomen; intestines in the neighbourhood of uterus were extensively agglutinated to it, to each other, and to the abdominal parietes, by lymph in process of organization; a few small sacculi, formed by lymph inclosing spots of half an inch to an inch in diameter, where the intestines did not touch the parietes, contained purulent matter, but the quantity, in all, was by no means great; uterus about two inches and a half or three inches in diameter, adhering, on all sides, more or less to the neighbouring viscera; the rent, occupying right side of fundus, appeared to have closed throughout the whole of its length within, and through about two-thirds of the substance of the uterus from within outwards; externally it had the appearance of a granulating, incised wound, which had not been evenly closed in the first instance, pouting a little towards the peritoneal surface; its length now appeared about an inch, or perhaps a little more, say two-fifths, of the diameter of the uterus.

"It was, of course, impossible to procure the specimen for preservation.

"The circumstance most worthy of attention in the foregoing case is the fact, that though leeching, mercurials by the skin, and fomentations, were availed of as *auxiliaries*, the main treatment was the full exhibition of opium, so as to keep the patient continually under its influence. The quantity taken was large—fifteen grains in the first twenty-four hours, and fifty grains in all during the first week of her illness, besides a considerable quantity afterwards, in various forms—and yet, during the whole period, none of the poisonous effects of the remedy were observed; no narcotism, no delirium; in fact, there was entire absence of cerebral disturbance, or of any of the unpleasant consequences which so frequently follow from a grain or two taken under other states of the system. The bowels, after a slight interruption, acted fully and freely, and the urinary and cutaneous secretions were natural throughout. But for the dogged obstinacy of the woman herself, there seems little doubt but that she would have added one to the still small list of recoveries from ruptured uterus; the case was still sufficiently successful, however, to show the value of opium

in such cases; its sustaining and quieting effects gave nature the opportunity to make the effort at reparation which could scarcely have been effected other wise.

"Persons not unfrequently sink without a rally under the shock consequent upon great and extensive injuries. Might not opium, given on the principles advocated above, afford such patients a chance of reaction, and ultimately of restoration?"—*Dub. Quart. Journ. of Med. Sci.*, August, 1857.

61. *Puerperal Fever*.—The Academy of Medicine in Paris has for some time been occupied in a discussion on Puerperal Fever, in which the leading obstetricians of the French metropolis have given utterance at length to their opinions. From among the numerous speeches, we translate that of M. CAZEAUX, as it gives a very good digest of the different opinions entertained.

I think that it would be superfluous, after the speeches which you have heard, to revert to the symptomatology and anatomical characters of the disease or diseases collectively described under the names of *puerperal fever* or *puerperal peritonitis*. These points in the discussion appear to me to have been sufficiently studied by M. Depaul and M. Cruveilhier. You are aware of the importance given by the last named speaker to lymphangitis among the alterations peculiar to puerperal fever; so much so, that he considers it characteristic of that disease. But that opinion has been vehemently disputed by M. Béhier, who maintains, on the contrary, that, in autopsies of women who have died of puerperal fever, he has found inflammation of the veins more frequently than of the lymphatics. This assertion of M. Béhier's has surprised me greatly. I have, for my own part, opened a good number of bodies of women who have died of puerperal diseases, and I declare that, like M. Cruveilhier, I have found pus much more frequently in the uterine lymphatics than in the veins. Does not M. Béhier's error depend on an anatomical confusion? For it is remarkable that, although he describes the pus as being in other vessels than M. Cruveilhier does, he still finds it in the same parts of the uterus or its appendages; that is to say, in those portions which are particularly rich in lymphatic vessels. But there is one question which has in an especial degree excited the speakers; it is that of knowing what is the nature of puerperal fever, and what nosological rank it is proper to assign to the lesions which it presents.

In this respect the speakers have been divided into two camps. In the one, they admit the existence of an essential fever—of a pyrexia; in the other, they see only local phlegmasiæ. Up to the present moment M. Beau is the only one who has formally declared himself in favour of this latter doctrine. With regard to the doctrine of essentiality, it has found supporters in M. Depaul, who has the most boldly and the most clearly laid down the question; in M. Danyau, who has also spoken out resolutely enough; in M. Troussseau, who, after having formally rejected the puerperal fever, has so well generalized it subsequently, that he has admitted it not only for women in child-bed, but even for women not in the puerperal state at all, for the fœtus, for the new-born child, and for all subjects attacked by any kind of traumatism. M. Dubois has equally announced himself an essentialist; but he has produced no new arguments in favour of that opinion, and he has enveloped his ideas in such thick clouds, that it is difficult through such a veil to distinguish a pure essentialist. The question, therefore, is solely and entirely between M. Depaul and M. Beau.

M. Beau appears to me to have replied victoriously to M. Depaul, invoking the epidemic and contagious characters of the disease as proofs of its essentiality. I will not revert to these arguments; but I will add that one of the characters of pyrexia, viz., the manifestations of the fever some days before the appearance of the local symptoms, as is the case with typhus and small-pox, is not what is observed in puerperal fever, in which the pain, which is the sign of local phlegmasiæ, shows itself almost at the same time as the shivering, which is the sign of the general pathological state. I find also a very good argument against essentialism in the speech of M. Dubois, who nevertheless makes profession of being an essentialist. Have we not heard that honourable professor tell us that the multiplicity, the variety of the lesions in puerperal fever,